

ORDINANCE #520

AN ORDINANCE TO AMEND THE COLLEGEDALE MUNICIPAL CODE BY ADDING TO TITLE 14 A NEW CHAPTER 4 FOR THE PURPOSE OF REGULATING AND CONTROLLING THE RUNOFF OF STORMWATER.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY OF COLLEGEDALE, TENNESSEE as follows:

Section 1. A new Title 14, Chapter 4 is hereby added to the Collegedale Municipal Code to read as follows:

TITLE 14

CHAPTER 4

STORMWATER RUNOFF REGULATION AND CONTROL

DIVISION I. GENERAL PURPOSE AND GENERAL REQUIREMENTS

SECTION

4-101. Purpose. The purpose of this ordinance is to diminish threats to the public health and safety caused by the runoff of excess stormwater, to minimize movement of soils resulting from development, to reduce the possibilities of hydraulic overloading of the storm sewer system, to reduce economic losses to individuals and the community at large as a result of erosion and the runoff of excess stormwater, and to protect and conserve land and water resources, while at the same time ensuring orderly development. The provisions of this ordinance are specifically intended to supplement existing ordinances regulating the following:

1. The subdivision, layout, and improvement of lands located within the City of Collegedale.
2. The excavating, filling, and grading of lots and other parcels or areas.
3. The construction of buildings, including related parking and other paved areas, and the drainage of the sites on which those structures and their related parking and other paved areas are located.
4. The design, construction, and maintenance of erosion control and stormwater drainage facilities and systems.

SECTION

4.102. Definitions. For the purposes of this ordinance, the following definitions are adopted:

1. Base Flood Elevation: The elevation delineating the flood level having a one-percent probability of being equaled or exceeded in any given year (also known as the 100-year flood elevation), as determined from Flood Insurance Rate Maps (FIRMS) or the best available information.
2. Channel: A natural or man-made open watercourse with definite bed and banks which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water.
3. City Engineer: The person formally designated by the City of Collegedale as the City Engineer.
4. Conduit: Any channel, pipe, sewer, or culvert used for the conveyance of movement of water, whether open or closed.

5. Control Elevation: Contour lines and points of predetermined elevation used to denote a detention storage area on a plat or site drawing.
6. Design Standards for Public Improvements: Standards on file in the City's offices to which all designs and the resulting public improvements, must conform.
7. Detention Facility: A facility constructed or modified to restrict the flow of stormwater to a prescribed maximum rate, and to concurrently detain the excess waters that accumulated behind the outlet.
8. Detention Storage: The temporary detaining or storage of stormwater in storage basins, on rooftops, in streets, parking lots, school yards, parks, open space, or other areas under predetermined and controlled conditions, with the rate of drainage therefrom regulated by appropriately installed devices.
9. Discharge: The rate of outflow of water from any source.
10. Drainage Area: The area from which water is carried off by a drainage system, i.e., a watershed or catchment area.
11. Excess Stormwater Runoff: The rate of flow of stormwater discharged from an urbanized drainage area which is or will be in excess of that volume and rate which represented or represents the runoff from the property prior to the date of this ordinance.
12. Floodplain: The special flood hazard lands adjoining a watercourse, the surface elevation of which is lower than the Base Flood Elevation and is subject to periodic inundation.
13. Hydrograph: A graph showing, for a given point on a stream or conduit, the runoff flow rate with respect to time.
14. Land Disturbance: Any man-made change to improve or unimprove real estate including but not limited to building structures, filling, grading, excation, clearing, or removal of vegetation.
15. One-Hundred Year Storm: A precipitation event of 24-hours' duration, having a one percent chance of occurring in any one year.
16. Peak Flow: The maximum rate of flow of stormwater at a given point in a channel or conduit resulting from a predetermined storm or flood.
17. Stormwater Drainage System: All means, natural or man-made, used for conducting stormwater to, through, or from a drainage area to the point of final outlet including, but not limited to, any of the following: open and closed conduits and appurtenant features, canals, channels, ditches, streams, swales, culverts, streets, and pumping stations.
18. Stormwater Drainage Facility: Any element in a stormwater drainage system which is made or improved by man.
19. Stormwater Runoff: The waters derived from precipitation within a tributary drainage area flowing over the surface of the ground or collected in channels or conduits.
20. Time of Concentration: The elapsed time for stormwater to flow from the most distant point in a drainage area to the outlet or other predetermined point.

21. Two-Year Storm: A precipitation event having a fifty percent chance of occurring in any one year.
22. Two-Year Storm Runoff: The stormwater runoff having a fifty percent probability of occurring in any one year.
23. Unprotected Channel: A channel which receives stormwater discharge and which is not paved, rip-rapped, or otherwise improved by addition of man-made materials so as to reduce the potential for erosion.
24. Upland Area: Any land whose surface drainage flows toward the area being considered for development.
25. Urbanization: The development, change, or improvement of any parcel of land consisting of one or more lots for residential, commercial, industrial, institutional, recreational, or public utility purposes.
26. Waterbody: Any natural or artificial pond, lake, reservoir, or other area which ordinarily or intermittently contains water and which has a discernable shoreline.
27. Watercourse: Any natural or artificial stream, river, creek, channel, ditch, canal, conduit, culvert, drain, waterway, gully, ravine, street, roadway, swale, or wash in which water flows in a definite direction, either continuously or intermittently, and which has a definite channel, bed, or banks.
28. Wet Bottom Detention Basin: A basin designed to retain a permanent pool of stormwater after having provided its planned detention of runoff during a storm event.

SECTION

4-103. Permit. Before initiating any activity regulated by this ordinance, an applicant shall be required to obtain a permit from the City which indicated that the requirements of this Chapter 4 have been met.

Permit fees shall be:

0 - 2.0 Acres	= \$ 15.00
2.1 - 4.9 Acres	= \$ 50.00
5.0 - Greater Acres	= \$100.00

SECTION

4-104. Other Requirements. In addition to meeting the requirements of Section 4-103. and the more specific requirements of Division 2 of this Chapter 4 and before starting any activity regulated by this ordinance, an applicant shall comply with the requirements set forth in all other related ordinances and State statutes and regulations.

SECTION

4-105. -- 4-109. Reserved.

DIVISION II. SPECIFIC REQUIREMENTS

SECTION

4-110. General. Sediment shall be maintained on site and excess stormwater runoff shall be detained in connection with any new construction, development, redevelopment, or land use change occurring within the City of Collegedale in accordance with the requirements set forth in this Chapter 4. Notwithstanding the foregoing, exceptions to this requirement are as follows:

1. For stormwater detention, the development of any subdivision of five or less single-family or two-family lots.

2. For stormwater detention, the development of commercial or industrial property in which the increase in run-off is less than ten percent (10%) of the pre-development runoff rate and less than five (5) cubic feet per second.
3. A determination by the City that the excess runoff from the proposed construction, development, redevelopment, or land use change will be insufficient to adversely effect the carrying capacity of the receiving body or watercourse. In this connection and should the City's determination of insufficient adverse effect be sought, the developer shall make available to the City such hydraulic or hydrologic computations as will support the requested exception.

SECTION

4-111. Discharge Rate. The peak discharge rate after full development resulting from the proposed development shall not exceed the corresponding peak discharge rate prior to development during storms of 2-year, 5-year, 10-year, and 25 year return frequencies.

SECTION

4-112. Flood Elevation. There shall be no detrimental effect on the floodway or the flood elevation during a 100 year storm upstream or downstream of the proposed development area as a result of the proposed development.

SECTION

4-113. Allowable Detention Facilities. The increased stormwater runoff resulting from proposed development shall be detained by providing for appropriate detention storage as required by this Chapter 4.

Where streets are used for temporary storage of stormwater runoff all manholes for sanitary sewers shall be of a type which prevent the infiltration of the ponded water. Where streets are used for the temporary storage of stormwater runoff, in no case shall the maximum design depth exceed six (6) inches.

SECTION

4-114. Detention Storage: Designs for detention storage and related appurtenances shall be submitted to the City for approval. Upon submittal of designs of detention storage the City shall make a determination as to whether any or all of the facilities proposed are to become part of the public drainage system. The City shall, at the same time, in the case of a proposed subdivision make a determination as to those control elevations that shall be entered on the final plat or make a determination as to the necessity for deed restrictions on any particular lot in said subdivision requiring the preservation of mandatory drainage facilities. Where a non-subdivided parcel of land is proposed for development, the City shall make a determination as to the need for covenants to maintain responsibility for mandatory drainage facilities. All of said facilities shall be designed and constructed in accordance with City of Collegedale specifications, shall be located in easements dedicated to the public, and shall be subject to continuing inspection during the construction period in the same manner as any other public improvement regulated under Title 14 of the Collegedale Municipal Code.

Detention facilities associated with residential subdivisions shall be in a separate lot that shall be deeded to the City after 75% of the lots in the subdivision are occupied and the lot soil stabilized. Prior to acceptance of the detention facility the City and the developer will inspect the facility to assure it meets all of the requirements of this Chapter 4. If any deficiencies are found, the developer will be responsible to make the necessary changes at his expense. Wet bottom detention basin is not acceptable to the city for operation and maintenance.

SECTION

4-115. Sizing of Detention Storage and Outlet.

1. The draining area used in computation will be the total area tributary to the detention storage outlet.
2. The developer will be required to submit detailed hydrologic and hydraulic calculations to show that the requirements of this Chapter 4 will be met. A unit hydrograph method of analysis will be used for detailed hydrologic computations.

SECTION

4-116. Discharge Velocity. The discharge velocity from detention facilities shall not exceed three feet per second unless it is determined by the City that greater velocities will not be harmful to the receiving channel. Where the City's determination is requested, the developer shall make available such hydraulic or hydrologic computations as will adequately support the course of action being requested.

SECTION

4-117. Emergency Spillway. Emergency spillways shall be provided to permit the safe passage of runoff generated from rainfall events in excess of the 100-year rainfall event.

SECTION

4-118. Freeboard. Detention storage areas shall have adequate capacity to contain the storage volume of tributary stormwater runoff with at least one foot of freeboard above the water surface during the 100-year rainfall event.

SECTION

4-119. Joint Development of Control System. Stormwater control systems may be planned in coordination by two or more property owners as long as the potential for damage from stormwater is not increased at intervening locations.

SECTION

4-120. Early Installation of Control Systems. Stormwater control measures shall be installed prior to undertaking other grading of site and a schedule of construction for this purpose shall be submitted by the Owners(s)/Developer(s) prior to construction in the City of Collegedale.

SECTION

4-121. Flows from Upland Areas. The total drainage area must be used in calculating the allowable release rate. The required storage volume will be based on the project area only, with extraneous flows from upland areas being bypassed or discharged via overflow spillways or other devices. Where storm sewers are required they shall be of such size as will provide sufficient capacity to receive the flow generated by five-year storm from upland areas. As to the latter and regardless of whether it has occurred in fact, such upland area shall be deemed to have been fully developed for all purposes of this requirement.

SECTION

4-122. Land Disturbance of Five Acres or More. The developer shall comply with the State of Tennessee General NPDES Permit for Stormwater Discharges Associated With Construction Activity and provide a copy to the City prior to starting construction.

SECTION

4-123. Land Disturbance of More than Two Acres and Less than Five Acres: The developer shall submit to the City a sediment and erosion control plan that meets the requirements of the State of Tennessee General NPDES Permit for Stormwater Discharges Associated with Construction Activity prior to starting construction.

SECTION

4-124. All Land Disturbances. Land disturbances associated with any new construction, development, redevelopment, or land use change on any site of 2,500 square foot or larger or requiring a building permit shall incorporate into the development plan the following elements as minimum:

- Stone construction entrance
- Silt fence or other sediment retaining device on the low side of the site
- Temporary seeding of disturbed areas remaining open more than three weeks
- Removal of soil tracked into the public right-of-way
- Permanent seeded

A copy of the development plan shall be submitted to the City prior to starting construction.

SECTION

4-125. -- 4-130. Reserved.

DIVISION III. ADDITIONAL SUBDIVISION AND BUILDING IMPROVEMENT REGULATIONS

SECTION

4-131. Preliminary Plats. Information indicating the manner in which the provisions of this ordinance are to be met shall be indicated on all preliminary plats.

SECTION

4-132. Requirements for Construction Plans. Information indicating the manner in which the provisions of this ordinance are to be met shall be submitted with all construction plan submissions or any other plan for improvements which falls under the requirements of Section 4-110. All computations, plans, and specifications shall be prepared and sealed by a professional engineer registered in the State of Tennessee.

4-133. Requirements for Final Plats. The easements or separate lots required for detention facilities shall be shown on the final plat. The control elevation for each detention facility shall be shown on the plat near the detention facility.

SECTION

4-134. Drainage and Detention Design Requirements. All subdivisions and other proposed improvements which are subject to the provisions of Section 4-110 shall incorporate such design features as are required in this Chapter 4. Variation from these requirements shall require the approval of the City Commission whose action shall be conditioned upon the following:

1. That a petition be submitted describing in detail the rationale for the proposed design change.
2. That there are special circumstances or conditions affecting the property under consideration such that strict compliance with the provisions of this Chapter 4 would deprive the applicant of the reasonable use of his land.
3. That the variance is necessary for the preservation and enjoyment of a substantial property right of the proprietor.
4. That the granting of the variance will not be detrimental to the public health, safety, or welfare or injurious to other property in the territory in which said property is located.

SECTION

4-135. Maintenance: Designs of detention facilities will incorporate features which facilitate their inspection and maintenance. The designer shall submit an Operation and Maintenance (O & M) Plan for any detention facility prior to its approval by the City. All privately owned detention facilities may be inspected by representatives of the City of Collegedale at such times as they deem necessary. If deficiencies, or conditions creating nuisances, are found, the owner shall be required to initiate the necessary corrections within fourteen (14) days, and all deficiencies shall be corrected within forty-five (45) days.

Prior to starting construction, the developer shall post a bond in the amount of 1.5 times the estimated construction cost of the detention facility plus an amount of \$10,000.00 for Operation and Maintenance. The bond will remain in force until the detention facility is accepted by the City.

SECTION

4-136. Safety Features: Designs of detention facilities shall incorporate safety features, particularly at inlets, outlets, on steep slopes, and at any attractive nuisances. These features shall include, but not be limited to, fencing, hand rails, lighting, steps, grills, signs, and other protective or warning devices so as to restrict access.

SECTION

4-137. -- 4-139. Reserved.

DIVISION IV. ADMINISTRATION

SECTION

4-140. Responsibility: The administration of this ordinance shall be the responsibility of the City of Collegedale.

SECTION

4-141. Interpretation: In the interpretation and application of this ordinance, the provisions expressed herein shall be held to be the minimum requirements and shall be liberally construed in favor of the City of Collegedale.

SECTION

4-142. APPEALS: The City of Collegedale Board of Commissioners is hereby designated as the appeals board for disputes arising from the application of this Ordinance. The Commission shall be to hear appeals where it is alleged by an appellant that there is error in any order, requirement, decision, grant or refusal made by the City in the enforcement of the provisions of this Ordinance.

SECTION

4-143. Penalties for violation:

1. General: Any person, firm, organization, association, or corporation violating any of the provisions of this Chapter 4, including violation of any variances granted under the authority of this Chapter 4, shall be deemed guilty of a violation of a Municipal ordinance and each such person or other entity shall be deemed guilty of a separate offense for each and every day or portion thereof that any violation of any of the provisions of this Code is committed, continued or permitted, and upon conviction of such violation, such person or other entity may be punished by a fine of not less than Fifty Dollars (\$50.00) and not more than Five Hundred Dollars (\$500.00).
2. Additional Corrective Actions: Any building or structure constructed in violation of the provisions of this Chapter 4 or any use carried on in violation of this Chapter 4 is hereby declared to be a nuisance per se,

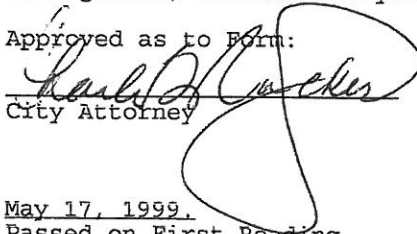
with any court of competent jurisdiction having the authority to determine that the owner or developer is guilty of maintaining a nuisance per se and to order such nuisance abated. In this connection, the City is hereby authorized to institute any appropriate action or proceeding in any appropriate court to prevent, restrain, correct, or abate any violations of this Chapter 4.

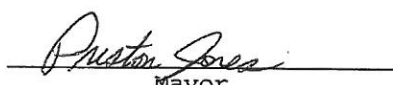
3. The provisions of this ordinance are in addition to and not in restriction of limitations or rights that the citizens of the City of Collegedale may have under the Common laws of the State of Tennessee.

Section 2. All ordinance or parts of ordinance in conflict herewith are hereby repealed only to the extent necessary to give this ordinance full force and effect.

Section 3. This ordinance shall take effect from and after the date of its final passage, the public welfare of the City of Collegedale, Tennessee requiring it.

Approved as to Form:


City Attorney


Mayor

May 17, 1999
Passed on First Reading

June 21, 1999 City Recorder
Passed on Second and Final Reading

